OhioEPA

State of Ohio Environmental Protection Agency

Street Address: Mailing Address:

TELE: (614) 644-3020 FAX: (614) 644-2329

12/14/97

CERTIFIED MAIL

13-18-00-2907

RE: Final Chapter 3745-35 Permit To Operate

Citgo Petroleum
Herman Stewart
2985 Eggers Avenue
Cleveland, OH 44105

Dear Herman Stewart:

The enclosed Permit(s) to Operate allow you to operate the described emissions unit(s) in the manner indicated in the Permit(s). Because each permit contains several terms and conditions, I urge you to read them carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed with the Environmental Review Appeals Commission within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
236 East Town Street
Room 300
Columbus, Ohio 43215

If you have any questions, please contact the Cleveland Division of Air Pollution Control at (216) 664-2324.

Very truly yours,

Thomas G. Rigo

Thomas G. Rigo, Manager
Field Operations and Permit Section
Division of Air Pollution Control

cc: Cleveland Division of Air Pollution Control
Jim Orlemann, DAPC Engineering

US EPA
Becky Castle, DAPC PMU

OhioEPA

PERMIT TO OPERATE AN EMISSIONS UNIT

Effective Date 12/14/97 | 'acility ID: 13-18-00-2907

Expiration Date: 2/14/00 | FINAL ISSUE

This document constitutes issuance for

Citgo Petroleum
2985 Eggers Avenue
Cleveland, OH 44105

of a permit to operate for:

J001 (2 bay gasoline and fuel oil bottom loading rack w/vapor)
2 bay gasoline and fuel oil bottom loading rack w/vapor

PART I General Terms & Conditions

Compliance Requirements

The above-described emissions unit is and shall remain in full compliance with all applicable State and federal laws and regulations and the terms and conditions of this permit.

Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

3. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner

a Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quar terly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

4. **Records Retention Requirements**

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of three years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Such records may be maintained in computerized form.

5. **Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State and federal air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

6. **Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions unit or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of this emissions unit(s) that is (are) served by such control system(s).

Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permittee. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

8. **Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. **Permit Renewal**

Approximately six months prior to the expiration date of this permit, a notice regarding the renewal of this permit will be sent to the permittee's designated facility contact. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency. It is the permittee's responsibility to renew this permit even if no notice of its expiration is received.

The following Ohio EPA District Office or local air agency has jurisdiction in the area in which the facility is located:

Cleveland Division of Air Pollution Control
1925 St. Clair
Cleveland, OH 44114
(216) 664-2324

You will be contacted approximately six months prior to expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate DO or LAA.

10. **The permittee is also subject to the attached special terms and conditions.**

OHIO ENVIRONMENTAL PROTECTION AGENCY

Director

Part II: Special Terms and Conditions

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
tank truck loading rack controlled with a carbon adsorption/gasoline absorption vapor recovery unit	OAC rule 3745-21-09(Q)	VOC emissions from the vapor control system shall not exceed 0.67 pound per 1,000 gallons of gasoline loaded into the delivery vessel.
	OAC rule 3745-35-07	Total VOC emissions from all emissions units at this facility shall not exceed 95 tons per year (TPY), as a rolling, 12-month summation. See A.2.a below.

2. **Additional Terms and Conditions**

   2.a The emissions of hazardous air pollutants (HAPs) from all emissions units at this facility, as identified in Section 112(b) of Title II of the Clean Air Act, shall not exceed 10 TPY for any individual HAP, and 25 TPY for any combination of HAPs, as rolling 12-month summations.

B. Operational Restrictions

1. Compliance with the emission limitations as stated in Section A.1 shall be achieved by restricting the annual throughput of gasoline, distillates, and additives (products). The annual combined throughput of products shall not exceed 280,320,000 gallons. In order to ensure federal enforceability during the first 12 calendar months of operation after the issuance of operation after the issuance of this permit to operate (PTO), this emissions unit shall not exceed the following product throughput limitations, in gallons:

Month(s)	Maximum Allowable Cumulative Throughput
1	23,360,000
1-2	46,720,000
1-3	70,080,000
1-4	93,440,000
1-5	116,800,000
1-6	140,160,000
1-7	163,520,000
1-8	186,880,000
1-9	210,240,000
1-10	233,600,000
1-11	256,960,000
1-12	280,320,000

   After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual throughput limitations shall be based upon a rolling, 12-month summation.

2. The vapor collection and control systems shall be kept in good working order and shall be used at all times during the transfer of products into the tank trucks.

B. Operational Restrictions (continued)

3. a. The loading rack shall be equipped with a vapor collection system whereby during the transfer of product to any delivery vessel:

i. All vapors displaced from the delivery vessel during loading are vented only to the vapor collection system.

ii. The pressure in the vapor collection system is maintained between minus 6 and plus 18 inches of water gauge pressure.

b. The loading rack shall be equipped with a vapor control system whereby:

All vapors collected by the vapor collection system are vented to the vapor control system.

ii. Any liquid product returned to a stationary storage tank from the vapor control system is free of entrained air to the extent possible with good engineering design.

c. A means shall be provided to prevent drainage of product from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected.

d. All product loading lines and vapor lines shall be equipped with fittings which are vapor tight.

e. The permittee shall prohibit product to be spilled, discharged in sewers, stored in open containers or handled in any other manner that would result in evaporation.

f. The permittee shall repair within 15 days any leak from the vapor collection system and vapor control system when such leak is equal to or greater than 100% of the lower explosive limit as propane, as determined under paragraph (K) of OAC rule 3745-21-10.

4. Any tank truck used in conjunction with this emissions unit must comply with the requirements of OAC rule 3745-21-09(V), if applicable.

5. The following vapor recovery unit parameter have been identified as key operating parameters for which acceptable operating ranges have been established. The peermittee shall operate the vapor recovery unit within these acceptable operating ranges:

a. to ensure proper regeneration of the carbon beds, the maximum vacuum pulled during the regeneration cycle shall be greater than or equal to 25 inches of Hg and the air purge solenoid must be open;

b. to ensure proper absorption by the absorption tower, the gasoline supply temperature shall not exceed 98 degrees F;

c. to ensure a proper flow rate from the absorption tower to the carbon bed, the absorber pressure shall be maintained between 8 psi and 15 psi; and

d. to ensure proper adsorption, the carbon bed temperature, at all levels, shall not exceed 150 degrees F

Operation of the vapor recovery unit outside of these specified operating ranges is not necessarily indicative of an emission violation, but rather serves as a trigger level for maintenance and/or repair activities, or futher investigation to establish correct operation.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information:

a. The total, individual throughputs, in gallons, of each product

b. During the first 12 calendar months of operation following the issuance of this permit, the cumulative total throughput, in gallons, of all products.

c. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the total product throughput, in gallons.

d. The total emissions of VOC for all emissions units at this facility, in tons.

e. The total emissions of each individual HAP for all emissions units at this facility, in tons.

f. The aggregate sum of all HAPs for all emissions units at this facility, in tons.

C. Monitoring and/or Record Keeping Requirements (continued)

2. The permitte shall implement, within 90 days of the issuance of this permit, a preventive maintenance program (PMP) for the McGill vapor recovery unit which has been approved by the Cleveland Local Air Agency. The PMP shall include an annual inspection of the vapor recovery unit by a qualified individual trained in the operation and inspection of carbon adsorption/absorption systems. The resultant report shall be maintained on site and shall be made available during subsequent inspections by the Cleveland Local Air Agency.

3. The permittee shall maintain the data required by the "McGill Daily Operating Check Sheet" on a daily basis. The permittee shall submit a copy of the check sheet to the Cleveland Local Air Agency within 90 days of the issuance of this permit. Any subsequent changes to this check sheet shall be mutually agreeable to the CITGO Petroleum Corporation and the Cleveland Local Air Agency.

4. The permittee shall collect and record the following information for each day for the control equipment:

   a. a log of the downtime for the capture (collection) system, control device, and monitoring equipment, when the emissions unit was in operation;

   b. during the regeneration cycle, the vacuum pressure in inches of Hg;

   c. the gasoline supply temperature in degrees F

   d. the absorber pressure in psi; and

   e. the carbon bed temperatures in degrees F

D. Reporting Requirements

1. The permittee shall submit semi-annual deviation (excursion) reports which identify any exceedances of the following:

   a. The maximum allowable cumulative throughput limitations for the first 12 calendar months of operation following the issuance of this permit.

   b. The rolling, 12-month throughput limitation for all products.

   c. Any parameter readings that are outside of the acceptable value for each vapor recovery unit key operating parameter established in Section B.5 above.

   The reports shall also document the cause of each exceedance and an explanation of any corrective actions which have been taken or will be taken to prevent a similar exceedance in the future.

   If no deviations occurred during the 6-month period, the permittee shall submit a semi-annual report which states that no deviations occurred during that 6-month period. These reports shall be submitted by February 15 and August 15 of each year and shall address the data obtained during the previous 6-month calendar period.

2. The permittee shall submit annual reports of the total throughput, in gallons, for all products during the calendar year for this emissions unit, and the total individual HAP and combined HAP emissions and the total VOC emissions for all emissions units at the facility. These annual reports shall be submitted by April 15 of each year and shall cover the previous calendar year.

E. Testing Requirements

1. Compliance with the emission limitation(s) in Section A of these terms and conditions shall be determined in accordance with the following method(s):

E. Testing Requirements (continued)

2. Emission Limitation: 0.67 pound of VOC per 1,000 gallons of gasoline loaded
Applicable Compliance Method: Compliance with this emission limitation shall be demonstrated through emission tests.

The emissions test methods and procedures are those outline in OAC rule 3745-21-10(E), i.e., a minimum of one 6-hour test, during which at least 300,000 liters (79,260 gallons) of gasoline are loaded. (The test should be conducted at the maximum throughput possible.)

Within 12 months prior to the expiration of this permit, the permittee shall conduct or have conducted an emission test(s) for this emissions unit in order to demonstrate continuing compliance with the allowable VOC mass emission rate. This test shall be done between the months of May and September.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland Local Air Agency. The "Intent to Test" notifcation shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Cleveland Local Air Agency's refusal to accept the results of the emissions test(s).

Personnel from the Cleveland Local Air Agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s), shall be signed by the person(s) responsible for the test(s) and submitted to the Cleveland Local Air Agency within 30 days following completion of the test(s).

3. To calculate VOC emissions for the purpose of determining compliance with the applicable emission limitation in Section A.1, the permittee shall comply with the following:

a. VOC emissions from the storage tanks shall be determined using the most recent version of USEPA's "Tanks" program.

b. The VOC emissions from fugitive emissions (i.e., valves, flanges, open ended lines, and pumps) shall be determined using EPA-453/R-95-017, "Protocol for Equipment Leak Emission Estimates."

c. VOC emissions from oil water separators shall be based upon the emission factors provided in AP-42, 5th Edition, Table 5.1-2.

d. The VOC emissions from gasoline tank truck loading shall be determined using the most recent VOC stack test results and a vapor-tightness loss rate of 9 mg/l from the trucks. The 9 mg/l leakage emission factor is calculated using 0.5% as the average leakage from a truck passing the 3-inch pressure decay test (USEPA, 1980: Bulk Gasoline Terminals - Background Information for Proposed Standards, Table C-4).

e. The VOC emissions from distillates and transmix loading shall be determined using AP-42, 5th Edition Equation 5.2-1.

E. Testing Requirements (continued)

4. To calculate HAP emissions for the purpose of determining compliance with the applicable emission limitations in Section A.2, the permittee shall comply with the procedures specified below.

a. For every individual HAP, multiply the following emission factors by the actual annual VOC emission rate for the year (in tons per year) for all gasoline VOC emissions from the facility, including fugitive emissions:

i. benzene - 0.0075306 pound of benzene emissions per pound of VOC emissions;
ii. ethyl benzene - 0.0004673 pound of ethyl benzene emissions per pound of VOC emissions;
iii. hexane - 0.0088215 pound of hexane emissions per pound of VOC emissions;
iv. methyl tert-butyl ether (MTBE) - 0.0603152 pound of MTBE per pound of VOC emissions;
v. toluene - 0.0031362 pound of toluene per pound of VOC emissions; and
vi. xylene - 0.0012151 pound of xylene per pound of VOC emissions.

b. For every individual HAP, multiply the following emission factors by the actual annual VOC emission rate for the year (in tons per year) for all distillate VOC emissions from the facility, including fugitive emissions:

i. biphenyl - 0.0296140 pound of biphenyl per pound of VOC emissions; and
ii. naphthalene - 0.0495713 pound of naphthalene per pound of VOC emissions.

c. For the combination of HAPs, sum the calculated annual emission rates for the individual HAPs.

These emission factors are based on the weight percent of each HAP in gasoline and distillates as taken from the facility's MSDS sheets. Should more accurate emission factors be developed during the current permit cycle, the permittee shall use them, provided the new emission factors are mutually agreeable to the Ohio EPA, the Cleveland Local Air Agency and the CITGO Petroleum Corporation.

F. Miscellaneous Requirements

1. The following special terms and conditions of this PTO are federally enforceable requirements: A-F